

# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

		Application Number	10/015,671 ✓
		Filing Date	December 11, 2001
		First Named Inventor	Napoleone FERRARA
		Group/Art Unit	1647
		Examiner Name	Rachel B. KAPUST
Total Number of Pages in This Submission	17 pages	Attorney Docket Number	39780-2830 P1C47

## ENCLOSURES (check all that apply)

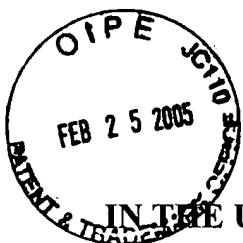
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Version with Markings Showing Changes <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input checked="" type="checkbox"/> Request for Corrected Filing Receipt & Response to Notice Regarding Benefit/Priority Claim <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Small Entity Statement <input type="checkbox"/> Request for Refund	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below): Copy of PCT/US00/04342 (Bibliographic Page), Copy of PCT/US99/28313 (Bibliographic Page), Copy of PCT/US99/20111 (Bibliographic Page), Copy of Filing Receipt for 60/099,596, Copy of Corrected Filing Receipt, Copy of Amendment filed 10/25/2004 with copy of stamped Postcard, Copy of Notice Regarding Benefit Claim and Return Postcard
Remarks: AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT 08-1641 (ATTORNEY DOCKET NO. 39780-2830 P1C47) FOR ANY FEES DUE IN CONNECTION WITH THIS PAPER.		

## SIGNATURE OF APPLICANT, ATTORNEY OR AGENT

Firm or Individual Name	Anna L. Barry, Reg. No. 51,436, HELLER EHRMAN WHITE & McAULIFFE LLP		
Signature			
Date	February 25, 2005	Customer Number:	35489/09157

## CERTIFICATE OF MAILING (37CFR 1.10)

I hereby certify that this correspondence (along with anything referred to as being attached or enclosed) is being deposited on the date shown below, with the United States Postal Service as "Express Mail Post Office to Addressee" service (Express Mail No. EL 997 674 860 US) addressed to Mail Stop: ISSUÉ FEE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450			
Typed or print name	Jason A. Gonzalez		
Signature		Date	February 25, 2005



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: ) Examiner: Kapust, Rachel B.  
)  
Napoleone FERRARA, et al. ) Art Unit: 1647  
)  
Application Serial No. 10/015,671 ) Confirmation No. 8003  
)  
Filed: December 11, 2001 ) Attorney's Docket No. 39780-2830 P1C47  
)  
For: **SECRETED AND** ) **Customer No. 35489**  
      **TRANSMEMBRANE** )  
      **POLYPEPTIDES AND** )  
      **NUCLEIC ACIDS ENCODING** )  
      **THE SAME**

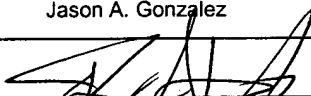
**RESPONSE TO NOTICE REGARDING BENEFIT/PRIORITY CLAIM**  
**AND REQUEST FOR CORRECTED FILING RECEIPT**

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants received a Notice Regarding Benefit/Priority Claim dated February 2, 2005 (a copy of which is enclosed). The Notice Regarding Benefit/Priority Claim indicated that a prior filed nonprovisional application has been improperly indicated as a national stage (35 U.S.C. 371 Application).

Upon review of all of the priority documents, Applicants request a corrected filing receipt.

CERTIFICATE OF EXPRESS MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated below and addressed to: Mail Stop: ISSUE FEE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA on the date indicated below.			
Express Mail Label: EL 977 674 860 US			
Typed or print name	Jason A. Gonzalez		
Signature		Date	February 25, 2005

Attached is a copy of the official filing receipt received from the U.S. Patent and Trademark Office in the above application for which issuance of a corrected filing receipt is respectfully requested. The Domestic Priority Data as claimed by applicant is incorrectly stated and the correction is marked in **red** as it **should** read.

The **correct** Domestic Priority Data is as follows:

CON of 09/946,374, 9/4/2001, ABN  
which is a CON of PCT/US00/04342, 2/18/2000,  
which is a CIP of PCT/US99/28313, 11/30/1999,  
which is a CIP of PCT/US99/20111, 9/1/1999,  
which claims benefit of 60/099,596, 9/9/1998

Applicants enclose the following documents in support of their priority claim and request that the Filing Receipt be corrected.

1. Copy of Bibliographic page of International Application No. PCT/US00/04342 filed 2/18/2000 which shows it claims priority to International Application PCT/US99/28313, filed 11/30/1999.
2. Copy of published bibliographic page of International Application PCT/US99/28313, filed 11/30/1999 which shows it claims priority to International Application No PCT/US99/20111, filed 9/1/1999.
3. Copy of bibliographic page of International Application No PCT/US99/20111, filed 9/1/1999 which shows it claims priority to U.S. Application No. 60/099,596, filed 9/9/1998.
4. Copy of Filing Receipt of U.S. Application No. 60/099,596, filed 9/9/1998.

Accordingly, Applicants believe that the chain of priority claim as presently submitted is correct.

Further, Applicants note that the inventors listed under Applicant(s) are incorrect. The correction is marked in **red** as it **should** read:

Napoleone Ferrara  
Audrey Goddard  
Paul J. Godowski

Austin Gurney  
James Pan  
Colin K. Watanabe  
William I. Wood

In support, Applicants enclose a copy of the stamped returned postcard and the previously filed Amendment under 37 C.F.R. §1.48(b).

Issuance of a Corrected Filing Receipt is respectfully requested.

The Commissioner is hereby authorized to charge any such fees to Deposit Account No. 08-1641, referencing attorney's docket no. 39780-2830P1C7.

Respectfully submitted,

Dated: February 25, 2005

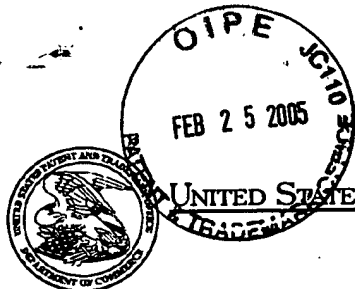
By: 

Anna L. Barry (Reg. No. 51,436)

**HELLER EHRMAN WHITE & McAULIFFE LLP**  
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SV 2104858 v1  
2/25/05 1:58 PM (39780.2830)

AB



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/015,671	12/11/2001	1647	1040	GNE.2830P1C47	249	20	3

35489

HELLER EHRMAN WHITE & MCAULIFFE LLP  
 275 MIDDLEFIELD ROAD  
 MENLO PARK, CO 94025-3506

RECEIVED

FEB 08 2005

H.E.W.M. LLP

CONFIRMATION NO. 8003

CORRECTED FILING RECEIPT



\*OC000000015088406\*

Date Mailed: 02/02/2005

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Kevin P. Baker, Darnestown, MD;  
~~David Botstein, Belmont, CA;~~  
~~Luc Desnoyers, San Francisco, CA;~~  
~~Dan L. Eaton, San Rafael, CA;~~  
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~~Kenneth J. Hillan, San Francisco, CA;~~  
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~~Timothy A. Stewart, San Francisco, CA;~~  
~~Daniel Tumas, Orinda, CA;~~  
 Colin K. Watanabe, Moraga, CA;  
~~P. Mickey Williams, Half Moon Bay, CA;~~  
 William I. Wood, Hillsborough, CA;

**Assignment For Published Patent Application**

Genentech, Inc.

Power of Attorney: The patent practitioners associated with Customer Number 09157.

REVIEWED

**Domestic Priority data as claimed by applicant**

This application is a CON of 09/946,374 09/04/2001 (NOW ABANDONED)  
 which is a CON of PCT/US00/04342 02/18/2000,

WHICH IS A CIP OF PCT/US99/28313  
 11/30/1999,

**~~Foreign Applications~~**

~~UNITED STATES OF AMERICA PCT/US99/00106 01/05/1999~~ WHICH IS A CIP OF  
~~UNITED STATES OF AMERICA PCT/US99/20111 09/01/1999~~ PCT/US99/20111, 9/1/1999,  
~~UNITED STATES OF AMERICA PCT/US99/21194 09/15/1999~~  
~~UNITED STATES OF AMERICA PCT/US99/28313 11/30/1999~~ WHICH CLAIMS BENEFIT OF  
~~UNITED STATES OF AMERICA PCT/US99/28551 12/02/1999~~ 60/099,596, 9/9/1998  
~~UNITED STATES OF AMERICA PCT/US99/30095 12/16/1999~~  
~~UNITED STATES OF AMERICA PCT/US00/00219 01/05/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/00376 01/06/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/03565 02/11/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/04342 02/18/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/05004 02/24/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/05841 03/02/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/06884 03/15/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/13705 05/17/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/14042 05/22/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/14941 05/30/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/15264 06/02/2000~~  
~~UNITED STATES OF AMERICA PCT/US00/23328 08/24/2000~~  
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~~UNITED STATES OF AMERICA PCT/US00/32678 12/01/2000~~  
~~UNITED STATES OF AMERICA PCT/US01/06520 02/28/2001~~  
~~UNITED STATES OF AMERICA PCT/US01/06666 03/01/2001~~  
~~UNITED STATES OF AMERICA PCT/US01/17800 06/01/2001~~  
~~UNITED STATES OF AMERICA PCT/US01/19692 06/20/2001~~  
~~UNITED STATES OF AMERICA PCT/US01/21066 06/29/2001~~  
~~UNITED STATES OF AMERICA PCT/US01/21735 07/09/2001~~

If Required, Foreign Filing License Granted: 03/26/2002

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/015,671**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No

**Title**

SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING  
 THE SAME

**Preliminary Class**

536

**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
28 December 2000 (28.12.2000)

PCT

(10) International Publication Number  
**WO 00/78961 A1**

- (51) International Patent Classification<sup>7</sup>: C12N 15/12, C07K 14/47, 14/705, C12N 15/62, C07K 16/18  
PCT/US99/28551  
2 December 1999 (02.12.1999) US  
PCT/US99/30095  
16 December 1999 (16.12.1999) US  
PCT/US00/219  
5 January 2000 (05.01.2000) US  
PCT/US00/376  
6 January 2000 (06.01.2000) US
- (21) International Application Number: PCT/US00/04342
- (22) International Filing Date: 18 February 2000 (18.02.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/141,037 23 June 1999 (23.06.1999) US  
60/144,758 20 July 1999 (20.07.1999) US  
60/145,698 26 July 1999 (26.07.1999) US  
PCT/US99/20111  
1 September 1999 (01.09.1999) US  
60/162,506 29 October 1999 (29.10.1999) US  
PCT/US99/28313  
30 November 1999 (30.11.1999) US
- (71) Applicant (for all designated States except US): GENENTECH, INC. [US/US]; 1 DNA Way, South San Francisco, CA 94080-4990 (US).
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): BAKER, Kevin, P. [GB/US]; 14006 Indian Run Drive, Darnestown, MD 20878 (US). BOTSTEIN, David [US/US]; 2539 Somerset Drive, Belmont, CA 94002 (US). DESNOYERS, Luc [CA/US]; 2050 Stockton Street, San Francisco, CA 94133 (US). EATON, Dan, L. [US/US]; 75 Knight Drive, San Rafael, CA 94901 (US). FERRARA, Napoleone [US/US]; 2090 Pacific Avenue #704, San Francisco, CA 94109 (US).

[Continued on next page]

(54) Title: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA19902  
><subunit 1 of 1, 245 aa, 1 stop, 1 unknown  
><MW: -1, pI: 8.36, NX(S/T): 1  
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VLIATGTVILLGTFGCFATCRASAWMLKLYAMFLTLLVFLVELVAAIVGFVERHEIKNSFKN  
NYEKALKQYNSTG DYRSHAVDKIQNTLHCCGVTDYRDWTDNTNYYSEKGFPSCKLEDCTPQ  
RDADKVNNEGCFIKVMTIIIESENGVVGISFGVACFQLIGIFLAYCXSRATNNQYEIV

**Important features of the protein:**

**Signal peptide:**

amino acids 1-42

**Transmembrane domains:**

amino acids 19-42, 61-83, 92-114, 209-230,

**N-glycosylation site.**

amino acids 134-138

**Tyrosine kinase phosphorylation site.**

amino acids 160-168, 160-169

**N-myristoylation site.**

amino acids 75-81, 78-84, 210-216, 214-220, 226-232

**Prokaryotic membrane lipoprotein lipid attachment site.**

amino acids 69-80, 211-222

(57) Abstract: The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

BEST AVAILABLE COPY



WO 00/78961 A1



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>A61K 38/17, 39/395, G01N 33/53, C12N 15/11, C07K 16/18, C12Q 1/68, G01N 33/68, A61K 48/00, C12N 15/867, 15/12, 1/21, 1/19, 5/10, C07K 14/47, 19/00</b>		<b>A2</b>	(11) International Publication Number: <b>WO 00/32221</b>  (43) International Publication Date: <b>8 June 2000 (08.06.00)</b>																																																						
(21) International Application Number: <b>PCT/US99/28313</b> (22) International Filing Date: <b>30 November 1999 (30.11.99)</b>		(71) Applicant (for all designated States except US): <b>GENENTECH, INC. [US/US]; 1 DNA Way, South San Francisco, CA 94080-4990 (US).</b>																																																							
(30) Priority Data: <table border="0"> <tr><td>PCT/US98/25108</td><td>1 December 1998 (01.12.98)</td><td>US</td></tr> <tr><td>60/112,850</td><td>16 December 1998 (16.12.98)</td><td>US</td></tr> <tr><td>60/115,554</td><td>12 January 1999 (12.01.99)</td><td>US</td></tr> <tr><td>PCT/US99/05028</td><td>8 March 1999 (08.03.99)</td><td>US</td></tr> <tr><td>60/123,957</td><td>12 March 1999 (12.03.99)</td><td>US</td></tr> <tr><td>60/131,445</td><td>28 April 1999 (28.04.99)</td><td>US</td></tr> <tr><td>60/134,287</td><td>14 May 1999 (14.05.99)</td><td>US</td></tr> <tr><td>PCT/US99/12252</td><td>2 June 1999 (02.06.99)</td><td>US</td></tr> <tr><td>60/141,037</td><td>23 June 1999 (23.06.99)</td><td>US</td></tr> <tr><td>60/144,758</td><td>20 July 1999 (20.07.99)</td><td>US</td></tr> <tr><td>60/145,698</td><td>26 July 1999 (26.07.99)</td><td>US</td></tr> <tr><td>PCT/US99/20111</td><td>1 September 1999 (01.09.99)</td><td>US</td></tr> <tr><td>PCT/US99/20594</td><td>8 September 1999 (08.09.99)</td><td>US</td></tr> <tr><td>PCT/US99/20944</td><td>13 September 1999 (13.09.99)</td><td>US</td></tr> <tr><td>PCT/US99/21090</td><td>15 September 1999 (15.09.99)</td><td>US</td></tr> <tr><td>PCT/US99/21547</td><td>15 September 1999 (15.09.99)</td><td>US</td></tr> <tr><td>PCT/US99/23089</td><td>5 October 1999 (05.10.99)</td><td>US</td></tr> <tr><td>60/162,506</td><td>29 October 1999 (29.10.99)</td><td>US</td></tr> </table>		PCT/US98/25108	1 December 1998 (01.12.98)	US	60/112,850	16 December 1998 (16.12.98)	US	60/115,554	12 January 1999 (12.01.99)	US	PCT/US99/05028	8 March 1999 (08.03.99)	US	60/123,957	12 March 1999 (12.03.99)	US	60/131,445	28 April 1999 (28.04.99)	US	60/134,287	14 May 1999 (14.05.99)	US	PCT/US99/12252	2 June 1999 (02.06.99)	US	60/141,037	23 June 1999 (23.06.99)	US	60/144,758	20 July 1999 (20.07.99)	US	60/145,698	26 July 1999 (26.07.99)	US	PCT/US99/20111	1 September 1999 (01.09.99)	US	PCT/US99/20594	8 September 1999 (08.09.99)	US	PCT/US99/20944	13 September 1999 (13.09.99)	US	PCT/US99/21090	15 September 1999 (15.09.99)	US	PCT/US99/21547	15 September 1999 (15.09.99)	US	PCT/US99/23089	5 October 1999 (05.10.99)	US	60/162,506	29 October 1999 (29.10.99)	US	(72) Inventors; and (75) Inventors/Applicants (for US only): <b>ASHKENAZI, Avi, J. [US/US]; 1456 Tarrytown Street, San Mateo, CA 94402 (US). BAKER, Kevin, P. [GB/US]; 14006 Indian Run Drive, Darnestown, MD 20878 (US). FERRARA, Napoleone [US/US]; 2090 Pacific Avenue, #704, San Francisco, CA 94109 (US). GERBER, Hanspeter [CH/US]; 1121 Tennessee Street, #5, San Francisco, CA 94107 (US). HILLAN, Kenneth, J. [GB/US]; 64 Seward Street, San Francisco, CA 94114 (US). GODDARD, Audrey [CA/US]; 110 Congo Street, San Francisco, CA 94131 (US). GODOWSKI, Paul, J. [US/US]; 2627 Easton Drive, Burlingame, CA 94010 (US). GURNEY, Austin, L. [US/US]; 1 Debbie Lane, Belmont, CA 94002 (US). KLEIN, Robert, D. [US/US]; 1044 Webster Street, Palo Alto, CA 94301 (US). KUO, Sophia, S. [US/US]; 59 Surrey Street #3, San Francisco, CA 94131 (US). PAONI, Nicholas, F. [US/US]; 1756 Terrace Drive, Belmont, CA 94002 (US). SMITH, Victoria [AU/US]; 19 Dwight Road, Burlingame, CA 94010 (US). WATANABE, Colin, K. [US/US]; 128 Corliss Drive, Moraga, CA 94556 (US). WILLIAMS, P., Mickey [US/US]; 509 Alto Avenue, Half Moon Bay, CA 94019 (US). WOOD, William, I. [US/US]; 35 Southdown Court, Hillsborough, CA 94010 (US).</b>	
PCT/US98/25108	1 December 1998 (01.12.98)	US																																																							
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60/162,506	29 October 1999 (29.10.99)	US																																																							
		(74) Agents: <b>BARNES, Elizabeth, M. et al.; Genentech, Inc., 1 DNA Way, South San Francisco, CA 94080-4990 (US).</b>																																																							
		(81) Designated States: <b>AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</b>																																																							
		<b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>																																																							
(54) Title: <b>PROMOTION OR INHIBITION OF ANGIOGENESIS AND CARDIOVASCULARIZATION</b>																																																									
(57) Abstract  <p>Compositions and methods are disclosed for stimulating or inhibiting angiogenesis and/or cardiovascularization in mammals, including humans. Pharmaceutical compositions are based on polypeptides or antagonists thereto that have been identified for one or more of these uses. Disorders that can be diagnosed, prevented, or treated by the compositions herein include trauma such as wounds, various cancers, and disorders of the vessels including atherosclerosis and cardiac hypertrophy. In addition, the present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.</p>																																																									



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>C12N 15/12, C07K 14/705, C12N 15/62, C07K 16/28, C12Q 1/68, C12N 5/10</b>		<b>A2</b>	(11) International Publication Number: <b>WO 00/12708</b>
			(43) International Publication Date: <b>9 March 2000 (09.03.00)</b>
(21) International Application Number: <b>PCT/US99/20111</b>		[AU/US]; 19 Dwight Road, Burlingame, CA 94010 (US). WATANABE, Colin, K. [US/US]; 128 Corliss Drive, Moraga, CA 94556 (US). WOOD, William, I. [US/US]; 35 Southdown Court, Hillsborough, CA 94010 (US).	
(22) International Filing Date: <b>1 September 1999 (01.09.99)</b>			
(30) Priority Data:		(74) Agents: KRESNAK, Mark, T. et al.; Genentech, Inc., 1 DNA Way, South San Francisco, CA 94080-4990 (US).	
60/098,716      1 September 1998 (01.09.98)      US 60/098,749      1 September 1998 (01.09.98)      US 60/098,750      1 September 1998 (01.09.98)      US 60/098,803      2 September 1998 (02.09.98)      US 60/098,821      2 September 1998 (02.09.98)      US 60/098,843      2 September 1998 (02.09.98)      US 60/099,536      9 September 1998 (09.09.98)      US 60/099,596      9 September 1998 (09.09.98)      US 60/099,598      9 September 1998 (09.09.98)      US 60/099,602      9 September 1998 (09.09.98)      US (continued after the drawings)			
(71) Applicant (for all designated States except US): GENENTECH, INC. [US/US]; 1 DNA Way, South San Francisco, CA 94080-4990 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, <u>US</u> , UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>	
(72) Inventors; and			
(75) Inventors/Applicants (for US only): BAKER, Kevin [GB/US]; 14006 Indian Run Drive, Darnestown, MD 20878 (US). GODDARD, Audrey [CA/US]; 110 Congo Street, San Francisco, CA 94131 (US). GURNEY, Austin, L. [US/US]; 1 Debbie Lane, Belmont, CA 94002 (US). SMITH, Victoria			

## (54) Title: FURTHER PRO POLYPEPTIDES AND SEQUENCES THEREOF

CCAATGCCCGGTGGGTGGTGCAGGGTCTGGGGCTAGTCAATGGCGTCCCGTCTGGGAGAC  
 TGCAGACTAAACAGTCATTACTTGTTCAGAGCGTTCTGCTAATCTACACTTTTATTTTC  
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 TTGAACCCGTATCCCTCTGAACACTGGAAGAGCTAGTAAATGTAAATGAAGT

## (57) Abstract

Membrane-bound proteins and receptor molecules have various industrial applications, including as pharmaceutical and diagnostic agents. Receptor immunoadhesins, for instance, can be employed as therapeutic agents to block receptor-ligand interactions. The membrane-bound proteins can also be employed for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. Efforts are being undertaken by both industry and academia to identify new, native receptor or membrane-bound proteins. Many efforts are focused on the screening of mammalian recombinant DNA libraries to identify the coding sequences for novel receptor or membrane-bound proteins. The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

PTO-103P  
(Rev. 8-95)

**PROVISIONAL APPLICATION  
FILING RECEIPT**



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231**

APPLICATION NUMBER	FILING DATE	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS
60/099,596	09/09/98	\$150.00	P-66595/WH/	8

**WALTER H DREGER  
FLEHR HOHBACH ALBRITTON & HEBERT  
4 EMBARCADERO CENTER  
SUITE 3400  
SAN FRANCISCO CA 94111**

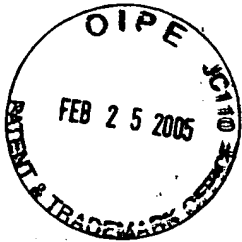
Receipt is acknowledged of this Provisional Application. This Provisional Application will not be examined for patentability. Be sure to provide the PROVISIONAL APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to Box Provisional Application within 10 days of receipt. Please provide a copy of the Provisional Application Filing Receipt with the changes noted thereon. This Provisional Application will automatically be abandoned twelve (12) months after its filing date and will not be subject to revival to restore it to pending status beyond a date which is after twelve (12) months from its filing date.

**Applicant(s) COLIN K. WATANABE, MORAGA, CA; WILLIAM I. WOOD,  
SAN MATEO, CA; AUDREY GODDARD, SAN FRANCISCO, CA.**

**FOREIGN FILING LICENSE GRANTED 09/28/98**

**TITLE**

**NOVEL SECRETED POLYPEPTIDES HAVING HOMOLOGY TO  
IMPLANTATION-ASSOCIATED PROTEIN AND NUCLEIC ACIDS ENCODING THE SAME**



BEST AVAILABLE COPY

EXPRESS MAIL NO. ~~977 609 279 03~~ DATE MAILED: OCTOBER 25, 2004  
Attorney's Docket No. 39780-2830 P1C47 (ALB/cf)

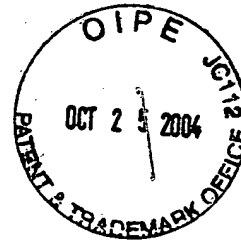
Applicant(s): Kevin P. BAKER, et al.  
Title: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
ACIDS ENCODING THE SAME  
Application Serial No. 10/015,671 Group Art Unit: 1647  
Filing Date: December 11, 2001 Examiner: Hunnicut, Rachel Kapust

Commissioner for Patents -- MAIL STOP AF  
PO Box 1450  
Alexandria, Virginia 22313-1450

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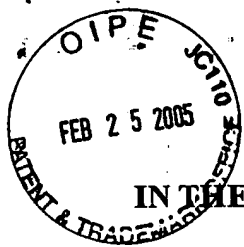
HELLER EHRMANN



SIR:

Please place the U.S. Patent and Trademark Office date stamp hereon to  
acknowledge receipt of the following:

1. Transmittal Form;
2. Amendment and Response to Final Office Action (11 pages); Declaration  
of Napoleon Ferrara, Audrey Goddard, Paul J. Godowski, Austin Gurney,  
James Pan, Colin K. Watanabe & William I. Wood Under 37 C.F.R. §1.131  
With Exhibit A (32 pages); Amendment Under 37 C.F.R. §1.48(b)  
(2 pages); and Return Postcard.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: ) Examiner: Hunnicutt, Rachel Kapust  
)  
Kevin P. BAKER, et al. ) Art Unit: 1647  
)  
Application Serial No. 10/015,671 ) Confirmation No. 8003  
)  
Filed: December 11, 2001 ) Attorney's Docket No. 39780-2830 P1C47  
)  
For: **SECRETED AND** ) **Customer No. 35489**  
)  
**TRANSMEMBRANE** )  
)  
**POLYPEPTIDES AND NUCLEIC** )  
)  
**ACIDS ENCODING THE SAME** )

---

EXPRESS MAIL LABEL NO. EL 977 609 279 US  
DATE MAILED: OCTOBER 25, 2004

AMENDMENT UNDER 37 C.F.R. §1.48(b)

**MAIL STOP AF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

In the above identified application, a Final Office Action was mailed on August 24, 2004. Having reviewed the application, Applicants have found that as a result of claim amendments made during prosecution, fewer than all of the currently named inventors are the actual inventors of the invention being claimed in the present application. Accordingly, please delete the names of the following inventors, who have not made an inventive contribution to the currently claimed subject matter:

Kevin P. Baker	David Botstein
Luc Desnoyers	Dan L. Eaton
Sherman Fong	Wei-Qiang Gao
J. Christopher Grimaldi	Kenneth J. Hillan
Nicholas F. Paoni	Margaret Ann Roy
Victoria Smith	Timothy A. Stewart
Daniel Tumas	P. Mickey Williams

Upon entering the present amendment, Napoleone Ferrara, Audrey Goddard, Paul J. Godowski, Austin Gurney, James Pan, Colin K. Watanabe and William I. Wood remain named inventors in this case.

Although no fees are believed to be due at this time, please charge any fees that might become applicable, including any fees for extension of time, or credit overpayment to Deposit Account No. 08-1641, referencing Attorney Docket No. 39780-2830 P1C47. Please direct any calls in connection with this application to the undersigned at the number provided below.

Respectfully submitted,

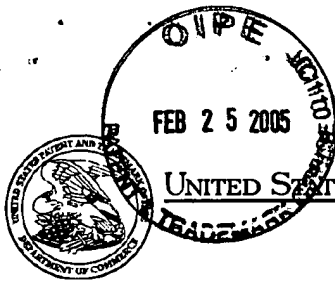
Date: October 25, 2004

By: 

Anna L. Barry (Reg. No. 51,436)

**HELLER EHRMAN WHITE & McAULIFFE LLP**  
275 Middlefield Road  
Menlo Park, California 94025  
Telephone: (650) 324-7000  
Facsimile: (650) 324-0638

SV 2060336 v1  
10/25/04 11:28 AM (39780.2830)



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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/015,671	12/11/2001	Kevin P. Baker	GNE.2830P1C47

CONFIRMATION NO. 8003

35489  
 HELLER EHRMAN WHITE & MCAULIFFE LLP  
 275 MIDDLEFIELD ROAD  
 MENLO PARK, CO 94025-3506



\*OC000000015088411\*

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FEB 03 2005

H.E.W.M. LLP

Date Mailed: 02/02/2005

### Notice Regarding Benefit/Priority Claim(s)

#### ☐ Improper Benefit Claim(s) to Prior-Filed Nonprovisional Application(s)

The benefit claim(s) to prior-filed nonprovisional application(s) is improper because there is no specific reference for each prior-filed application that includes: (1) the identification of the prior-filed application by application number, or international application number and international filing date; and (2) a clear indication the relationship (i.e., continuation, divisional, or continuation-in-part) of the nonprovisional applications. For example, applicant should amend the specification to include a specific reference, such as "This application is a continuation of Application No. 10/---,--- filed ---," in the first sentence of the specification following the title.

Applicant should review each benefit claim submitted and, if appropriate, provide the proper reference to the prior-filed application(s) as required by 37 CFR 1.78. A proper relationship includes an identification of each nonprovisional application as a continuation, divisional or continuation-in-part application of the immediate prior-filed nonprovisional application for which a benefit is claimed under 37 CFR 1.78 in order to establish copendency throughout the entire chain of prior-filed applications. The specific reference must be included in the domestic priority information section of an application data sheet (37 CFR 1.76), or the specification must contain, or be amended to contain, such reference in the first sentence following the title.

**Timeliness:** The required reference for each benefit claim must be filed during the pendency of the instant application and within the later of: (1) four months from the actual filing date of the instant application, or the national stage commencement date if the instant application is a national stage application under 35 U.S.C. 371; or (2) sixteen months from the filing date of the prior-filed application. Failure to timely file the required reference is considered a waiver of any benefit claim, unless a grantable petition to accept an unintentionally delayed claim under 37 CFR 1.78(a), the surcharge set forth in 37 CFR 1.17(t), and the required reference are filed. See 37 CFR 1.78(a).

#### ☐ Improper Benefit Claim(s) to Prior-Filed Nonprovisional Application(s)

The benefit claim(s) to prior-filed provisional application(s) is improper because the instant application was not filed within twelve (12) months from the filing date of the provisional application, and there is no indication of an intermediate nonprovisional application that is directly claiming the

benefit of the provisional application and filed within 12 months of the filing date of the provisional application. For example, applicant should amend the specification to include a specific reference, such as "This application is a continuation of Application No. 10/---,--- filed ---, which claims the benefit of U.S. Provisional Application No. 60/---,--- filed---." in the first sentence of the specification following the title.

Applicant should review each benefit claim submitted and, if appropriate, provide the proper reference to the prior-filed applications (including an indication of any intermediate nonprovisional application that is directly claiming the benefit of the provisional application and filed with 12 months of the filing date of the provisional application) as required by 37 CFR 1.78. The required reference must be included in the domestic priority information section of an application data sheet (37 CFR 1.76), or the specification must contain, or be amended to contain, such reference in the first sentence following the title.

**Timeliness:** The required reference for each benefit claim must be filed during the pendency of the instant application and within the later of: (1) four months from the actual filing date of the instant application, or the national stage commencement date if the instant application is a national stage application under 35 U.S.C. 371; or (2) sixteen months from the filing date of the prior-filed application. Failure to timely file the required reference is considered a waiver of any benefit claim, unless a grantable petition to accept an unintentionally delayed claim under 37 CFR 1.78(a), the surcharge set forth in 37 CFR 1.17(t), and the required reference are filed during the pendency of the instant application.

☐ **Improper Priority Claim(s) to Prior-Filed Foreign Application(s)**

The instant application was not filed within twelve (12) months from the filing date of the prior-filed foreign application, and there is no benefit claim to an intermediate nonprovisional application filed within 12 months of the filing date of the foreign application. Applicant should review each priority claim submitted and, if appropriate, provide the proper reference to any intermediate nonprovisional application filed within 12 months of the filing date of the foreign application in compliance with 37 CFR 1.78, or delete the priority claim. The required reference to an intermediate nonprovisional application must be included in the domestic priority information section of an application data sheet (37 CFR 1.76), or the specification must contain, or be amended to contain, such reference in the first sentence following the title.

**Timeliness:** The required reference for the benefit claim to an intermediate nonprovisional application must be filed during the pendency of the instant application and within the later of: (1) four months from the actual filing date of the instant application, or the national stage commencement date if the instant application is a national stage application under 35 U.S.C. 371; or (2) sixteen months from the filing date of the prior-filed application. Failure to timely file the required reference is considered a waiver of any benefit claim, unless a grantable petition to accept an unintentionally delayed claim under 37 CFR 1.78(a), the surcharge set forth in 37 CFR 1.17(t), and the required reference are filed.

☐ **Benefit Claims to More Than 400 Prior-Filed Applications**

The Office's automated system to record and capture benefit claims is only capable of recording benefit claims for 400 prior-filed applications. Therefore, the Office is unable to generate a filing receipt containing benefit claims for more than 400 prior-filed applications even though applicant is entitled to submit benefit claims for more than 400 prior-filed applications. Accordingly, applicant should not request a corrected filing receipt to include benefit claims for more than 400 prior-filed applications.



**Prior-Filed Nonprovisional Application has been Improperly Indicated as a National Stage (35 U.S.C. 371) Application**

Applicant submitted a benefit claim to a prior-filed nonprovisional application and improperly indicated that the prior-filed application is a national stage application under 35 U.S.C. 371. The Office's records show that the prior-filed application is an application filed under 35 U.S.C. 111(a). The Office has entered the benefit claim to the prior-filed application as a benefit claim to an application filed under 35 U.S.C. 111(a). Any request for a corrected filing receipt to include the indication that the prior-filed application is a national stage application will not be granted unless applicant supplies evidence that the prior application was in fact a national stage application. Accordingly, applicant should not submit such request without such evidence. Applicant should submit an amendment (or an application data sheet (ADS) if the benefit claim was submitted in an ADS) to delete the indication that the prior-filed application is a national stage application.

For more information and examples on benefit claims, please see Claiming the Benefit of a Prior-Filed Application under 35 U.S.C. 119(e), 120, 121, and 365(c), 1268 Off. Gaz. Pat. Office 89 (March 18, 2003), which is available on the USPTO website at <http://www.uspto.gov/web/offices/com/sol/og/2003/week11/patbene.htm>, and the Manual of Patent Examining Procedure (MPEP) §§ 201.11 and 201.14.

PART 2 - COPY TO BE RETURNED WITH RESPONSE